
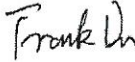
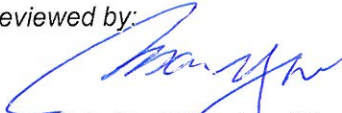


Prüfbericht-Nr.: <i>Test Report No.:</i>	16061101 001	Auftrags-Nr.: <i>Order No.:</i>	174022280	Seite 1 von 33 Page 1 of 33
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	352690	Auftragsdatum: <i>Order date.:</i>	20 May 2014	
Auftraggeber: <i>Client:</i>	Sam Ash Music Corporation 262 Duffy Avenue, Hicksville, NY 11801			
Prüfgegenstand: <i>Test item:</i>	Dual-Channel Wireless System			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	CH288			
Auftrags-Inhalt: <i>Order content:</i>	TUV Rheinland - EMC service			
Prüfgrundlage: <i>Test specification:</i>	TIA/EIA-603-C-2004 FCC 47 CFR Part 74.861, Subpart H: 2013			
Wareneingangsdatum: <i>Date of receipt:</i>	08 May 2014			
Prüfmuster-Nr.: <i>Test sample No.:</i>	174022280-001			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Guangdong) Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd. EMC Laboratory			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
 19 Sep. 2014 Frank Du/ Senior Project Engineer		 19 Sep. 2014 Max Y. C. Yao/ Department Manager		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet		Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested		
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

V04

TEST SUMMARY

5.1 CONDUCTED OUTPUT POWER*RESULT: Pass***5.2 SPURIOUS RADIATION MEASUREMENT (TX)***RESULT: Pass***5.3 MODULATION CHARACTERISTICS MEASUREMENT***RESULT: Pass***5.4 OCCUPIED BANDWIDTH***RESULT: Pass***5.5 FREQUENCY TOLERANCE***RESULT: Pass***5.6 EMISSION MASK***RESULT: Pass***5.7 ELECTROMAGNETIC FIELDS***RESULT: Pass*

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1. General Remarks

1.1. Complementary Materials

All attachments are integral parts of this test report.

2. Test Sites

2.1. Test Facilities

TÜV Rheinland(Guangdong) Ltd. EMC Laboratory.
 No.102, 1F of Southwest Warehouse Building, No.767 TianYuan Road, Tianhe District,
 Guangzhou, P.R.China, 510650

2.2. List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Type	Manufacturer	S/N	Calibrated until	Calibrated Interval
EMI Test Receiver	ESCI-3	Rohde & Schwarz	100216	16.Mar.2015	1 year
Spectrum Analyzer	FSP30	Rohde & Schwarz	100286	16.Mar.2015	1 year
Trilog-Broadband Antenna	VULB9168 (30MHz-1GHz)	SCHWARZBECK MESSELEKTRONIK	209	16.Mar.2015	2 years
Double-Ridged Waveguide Horn Antenna	HF906 (1-18GHz)	Rohde & Schwarz	100385	16.Mar.2015	2 years
Pre-amplifier	AFS42- 00101800-25-S- 42	MITEQ	1101599	16.Mar.2015	2 years
Band Reject Filter	BRM50702	Micro-Tronics	023	16.Mar.2015	2 years
Standard Gain Horn Antenna	3160-09 (18-26.5GHz)	EMCO	21642	16.Mar.2015	5 years
Pre-amplifier	AFS33- 18002650-30- 8P-44	MITEQ	1108282	16.Mar.2015	2 years
3m Anechoic Chamber	N/A	Albatross Project GmbH	N/A	16.Mar.2015	1 year
Loop Antenna	HFH2-Z2 (<30MHz)	Rohde & Schwarz	100111	16.Mar.2015	2 years
EMI Test Receiver	ESCS30	Rohde & Schwarz	100316	16.Mar.2015	1 year

Kind of Equipment	Type	Manufacturer	S/N	Calibrated until	Calibrated Interval
Two-Line V-Network	ESH3-Z5	Rohde & Schwarz	100308	16.Mar.2015	1 year
Pulse Limiter	ESH3-Z2	Rohde & Schwarz	100701	16.Mar.2015	1 year

Conformance of the used measurement and test equipment with the requirements of ISO/IEC 17025:2005 has been confirmed before testing.

2.3. Trace ability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4. Calibration

All equipment requiring calibration is calibrated periodically by the manufacturer or accredited calibration services according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5. Abbreviations

PASS means 'complied with requirement'	N/A means 'not applicable'
FAIL means 'not complied'	N.C.R. means 'no calibration required'

2.6. Measurement Uncertainty

Table 2: Measurement Uncertainty

Testing Item	Frequency Range	Uncertainty
Conducted Emission (Mains port)	0.09MHz - 30MHz	2.26 dB
Radiated Emission (966 Chamber: 3m)	0.09MHz - 30MHz	4.42 dB
Radiated Emission (966 Chamber: 3m)	30MHz – 1000MHz	5.16 dB
Radiated Emission (966 Chamber: 3m)	Above 1000MHz	2.22 dB

Note:

The uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. General Product Information

3.1. Product Function and Intended Use

The tested sample is a "**Dual-Channel Wireless System**" with model number as shown in the cover page of test report for new approval.

The tested sample has microphone input function.

3.2. Rating and Physical Characteristics

Product name:	Wireless Microphone
Model name:	CH288
Rating:	3Vdc
Frequency range:	470 ~ 566MHz
Channel numbers:	64
Bandwidth:	200kHz
Modulation:	FM
Antenna:	Integral
Temperature	-20 ~ 55 °C

3.3. Noise Generating or Sources of Interference

- 1) IC circuits

3.4. Noise Suppressing Parts

Please refer to Attachment Photo Documentation for details.

3.5. Submitted Documents

- 1) Circuit diagram
- 2) Block diagram
- 3) User manual
- 4) PCB Layout
- 5) BOM List

4. Test Set-up and Operation Modes

4.1. Test Methodology

The test methodology used is based on the requirement of 47 CFR PART 15, section 15.31, 15.33, 15.35, 15.107 and 15.109, or of ICES-003.

The test methods, which have been used, are based on ANSI C63.4 or CAN/CSA-CEI/IEC CISPR 22.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the instructions for use.

4.2. Independent and Test Operation Modes

The basic operation mode is:

- A. Transmitter mode
 - 1. Low CH
 - 2. Middle CH
 - 3. High CH

4.3. Special Accessories and Auxiliary Equipment

The EUT was tested as an independent unit with the following equipment:

Description	Manufacturer	Model No.	S/N	Certification
N/A	N/A	N/A	N/A	N/A

4.4. Countermeasures to achieve EMC compliance

The test sample, which has been tested, contained the noise suppression parts as described in the technical document. No additional measures were employed to achieve compliance.

4.5. Test Setup

The test setup was realized on a table of 80cm height during all the tests.

The test arrangement is configured and set according to manufacturer's installations.

Diagram 1 of Configuration for testing other test items

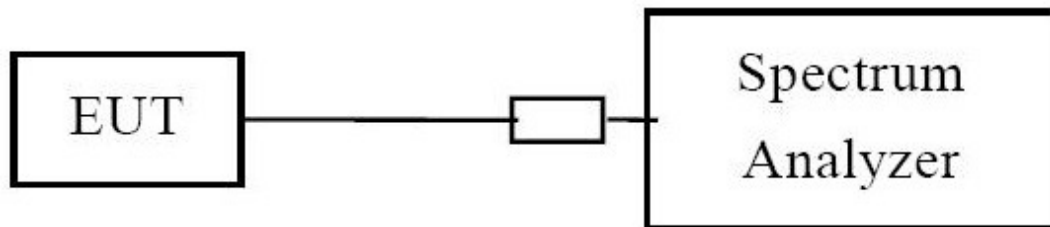


Diagram 2 of Measurement Equipment Configuration for Testing Radiated Emission

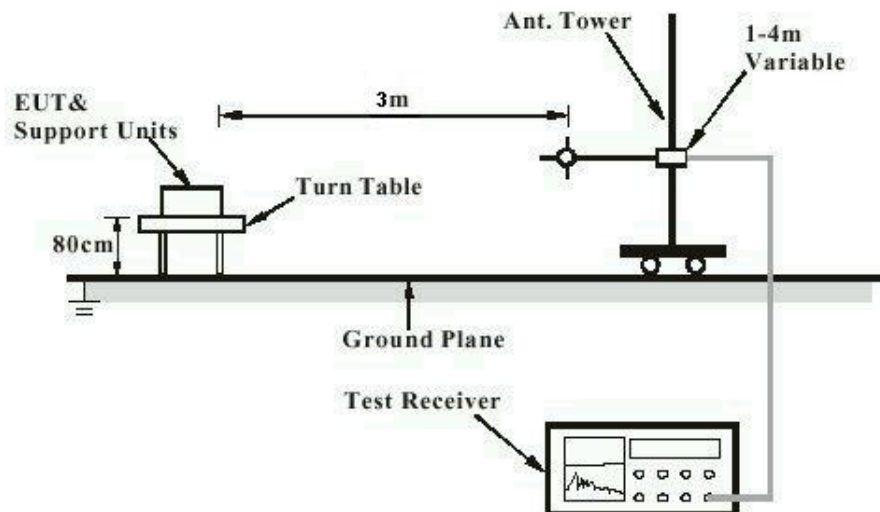
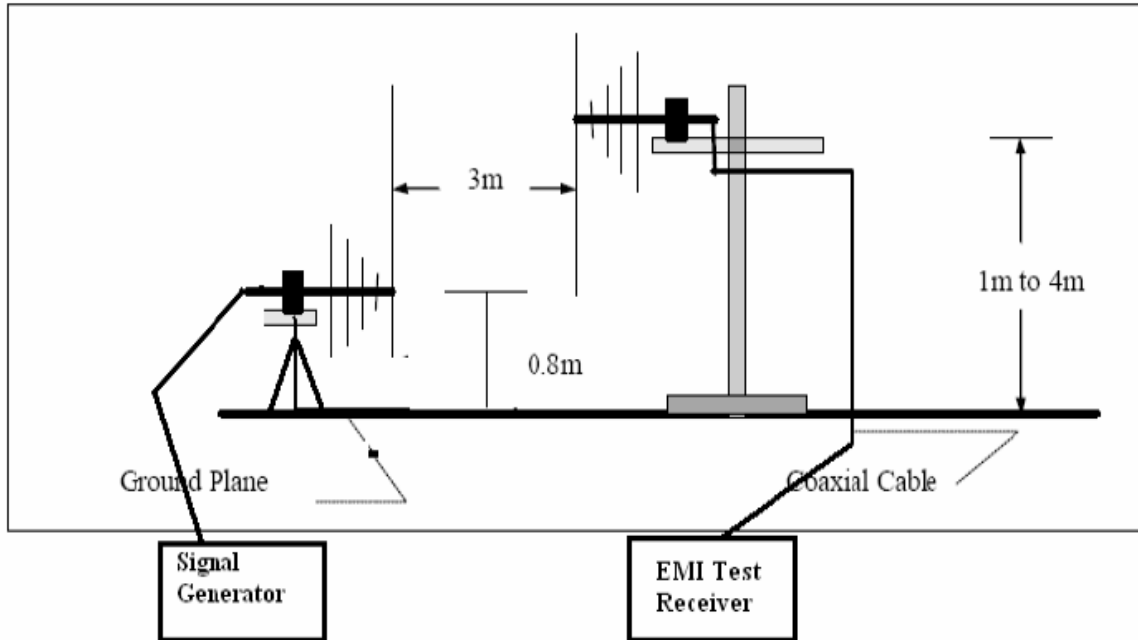


Diagram 3 of Measurement Equipment Configuration for Substitution Method



5. Test Results EMISSION

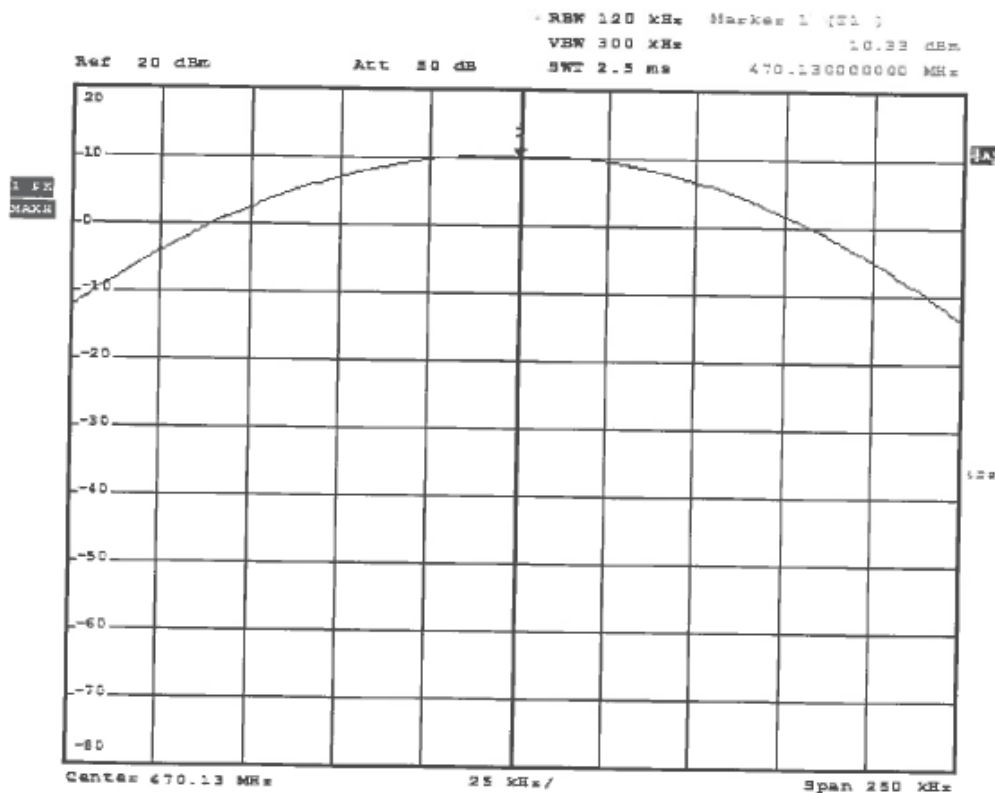
5.1. Conducted Output Power

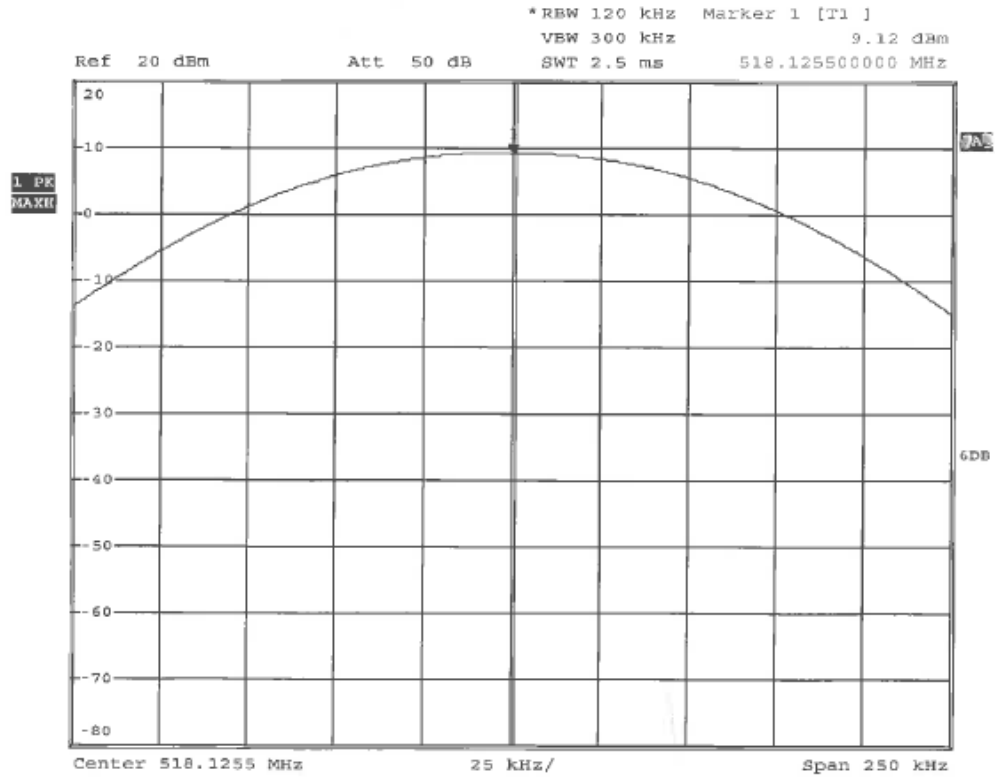
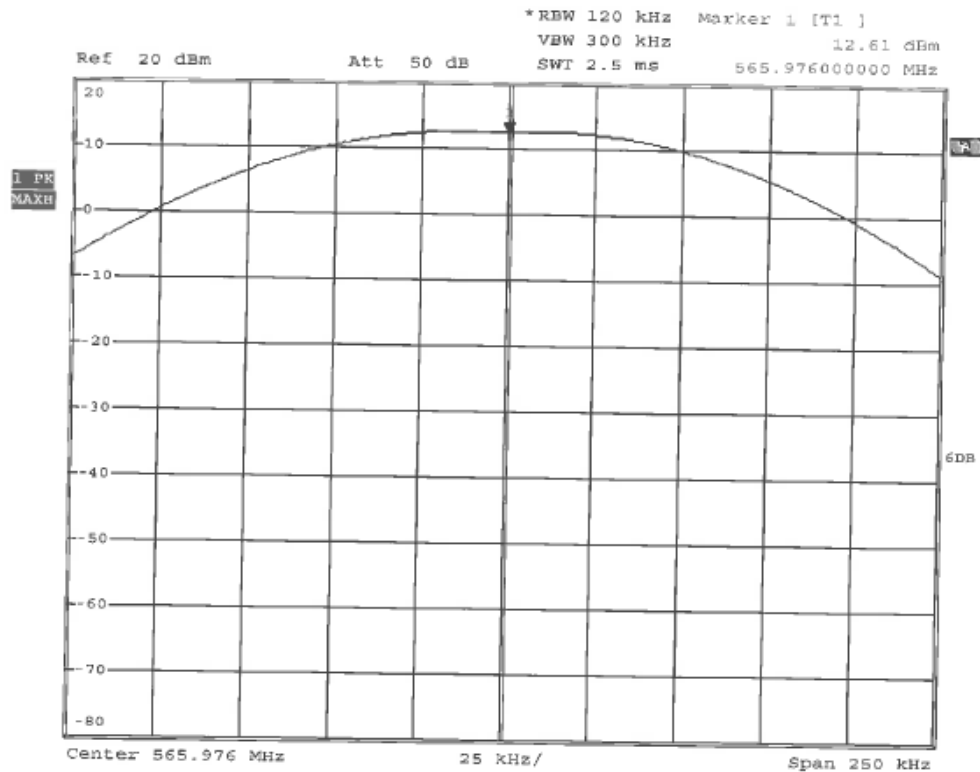
RESULT:	PASS
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Date of testing	:	26 May 2014 / 25 Sep. 2014
Test specification	:	FCC Part 2 Per Section 2.1046(a)
Guide	:	ANSI/TIA-603-C-2004, clause 2.2.17
Limits	:	FCC Part 74 Per Section 74.861(e)(1)
Kind of test site	:	3m Anechoic Chamber
Operation mode	:	Transmitting (unmodulated)
Temperature	:	23°C
Humidity	:	50%

Figure 1: Conducted Output Power

Low CH:

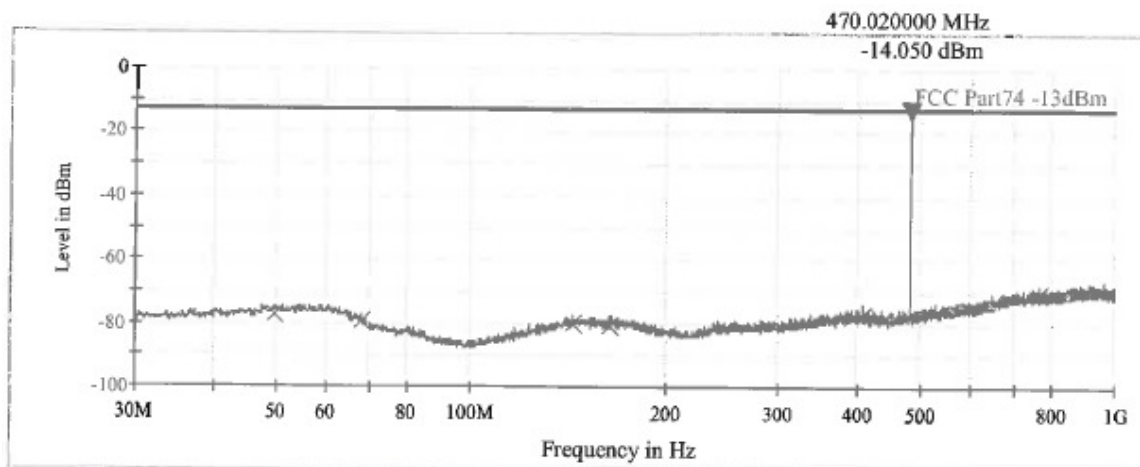


Middle CH:

High CH:


5.2. Spurious Radiation Measurement

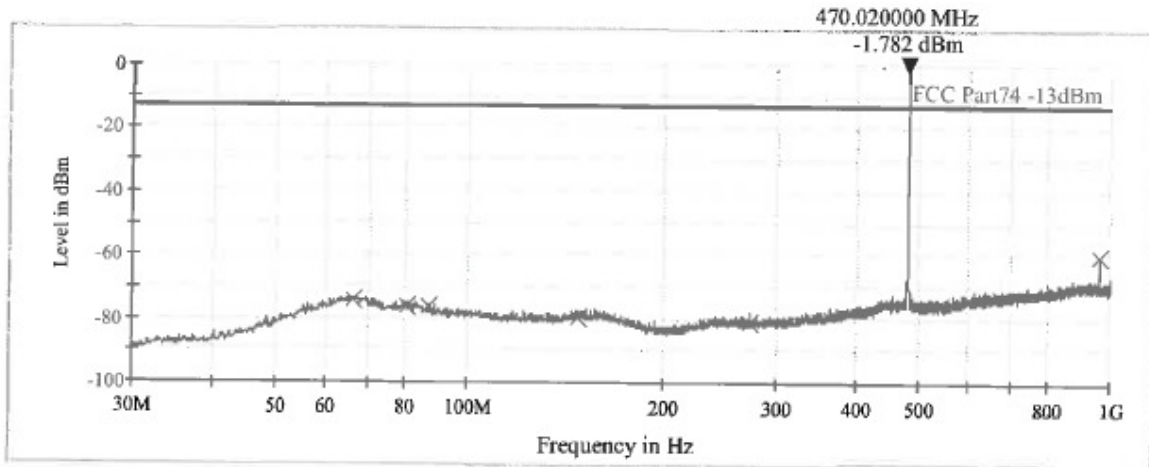
RESULT:
PASS

Date of testing : 26 May 2014 / 25 Sep. 2014
 Test specification : FCC Part 2 Per Section 2.1053(a) and 2.1057
 Guide : ANSI/TIA-603-C-2004, clause 2.2.12
 Limits : FCC Part 74 Per Section 74.861(e)(6)(iii)
 Kind of test site : 3m Full-Anechoic Chamber
 Operation mode : Transmitting (unmodulated)
 Temperature : 23°C
 Humidity : 50%

Figure 2: TX Spurious Radiation, 30 – 1000 MHz, Horizontal (CH288, Low CH)


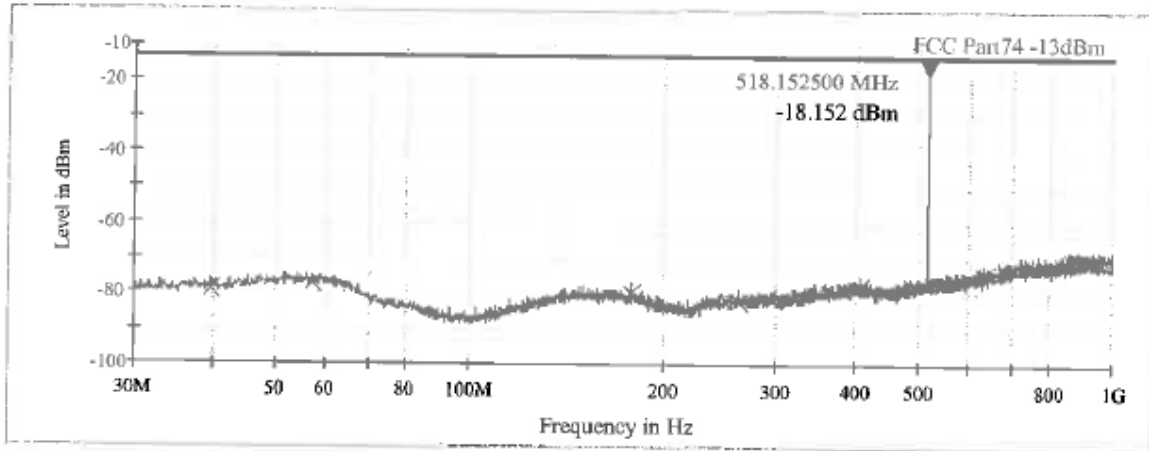
Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
48.550000	-77.6	1000.0	100.000	H	-79.4	64.6	-13.0
67.600000	-79.7	1000.0	100.000	H	-82.6	66.7	-13.0
143.600000	-80.5	1000.0	100.000	H	-82.8	67.5	-13.0
164.000000	-81.1	1000.0	100.000	H	-82.4	68.1	-13.0
406.700000	-77.8	1000.0	100.000	H	-79.8	64.8	-13.0
765.150000	-70.9	1000.0	100.000	H	-73.9	57.9	-13.0

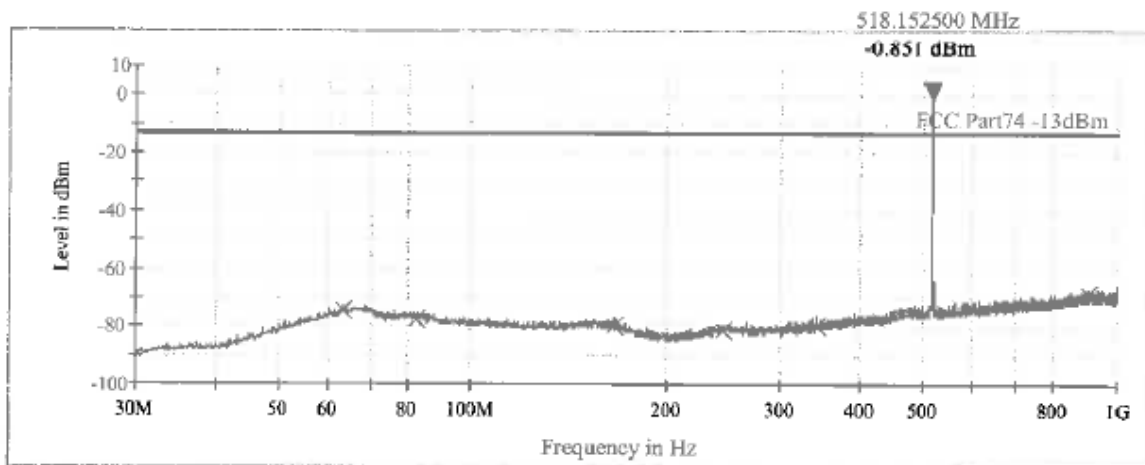
Figure 3: TX Spurious Radiation, 30 – 1000 MHz, Vertical (CH288, Low CH)


Limit and Margin PK

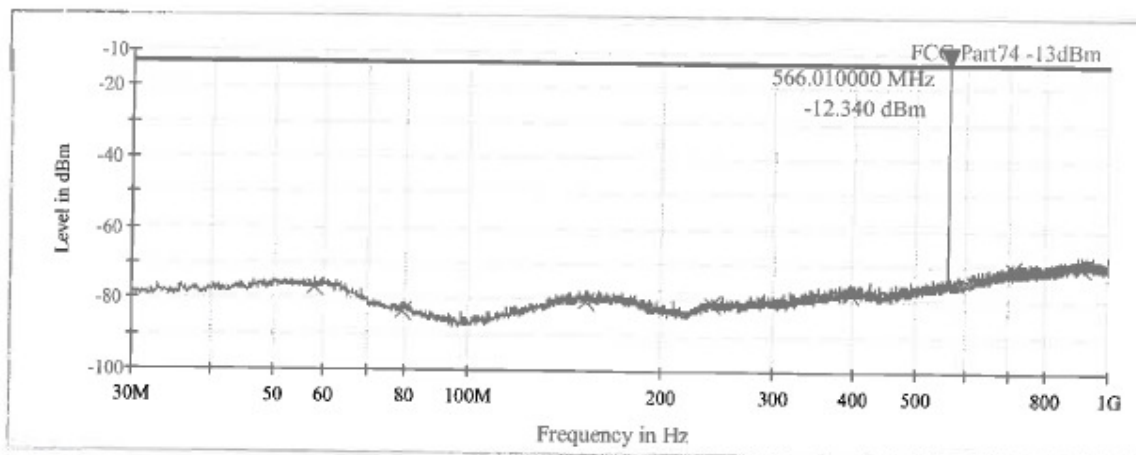
Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
65.800000	-74.5	1000.0	100.000	V	-77.3	61.5	-13.0
80.200000	-76.4	1000.0	100.000	V	-78.7	63.4	-13.0
86.800000	-76.3	1000.0	100.000	V	-80.1	63.3	-13.0
148.000000	-79.8	1000.0	100.000	V	-82.1	66.8	-13.0
273.700000	-81.2	1000.0	100.000	V	-83.6	68.2	-13.0
964.000000	-60.2	1000.0	100.000	V	-72.3	47.2	-13.0

Figure 4: TX Spurious Radiation, 30 – 1000 MHz, Horizontal (CH288, Middle CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
39.600000	-79.0	1000.0	100.000	H	-81.0	66.0	-13.0
57.050000	-77.5	1000.0	100.000	H	-79.3	64.5	-13.0
178.300000	-79.7	1000.0	100.000	H	-82.6	66.7	-13.0
262.450000	-82.1	1000.0	100.000	H	-83.8	69.1	-13.0
407.550000	-78.0	1000.0	100.000	H	-79.8	65.0	-13.0
861.650000	-69.9	1000.0	100.000	H	-72.7	56.9	-13.0

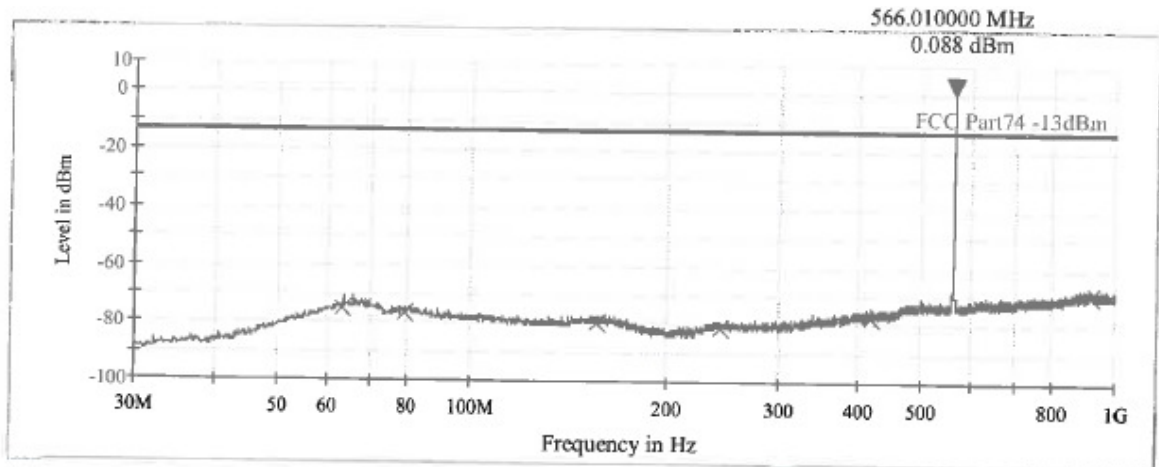
Figure 5: TX Spurious Radiation, 30 – 1000 MHz, Vertical (CH288, Middle CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
63.100000	-74.3	1000.0	100.000	V	-78.0	61.3	-13.0
82.000000	-77.3	1000.0	100.000	V	-79.1	64.3	-13.0
166.000000	-79.7	1000.0	100.000	V	-82.2	66.7	-13.0
245.800000	-80.9	1000.0	100.000	V	-83.2	67.9	-13.0
342.400000	-79.6	1000.0	100.000	V	-82.0	66.6	-13.0
901.900000	-68.7	1000.0	100.000	V	-72.0	55.7	-13.0

Figure 6: TX Spurious Radiation, 30 – 1000 MHz, Horizontal (CH288, High CH)


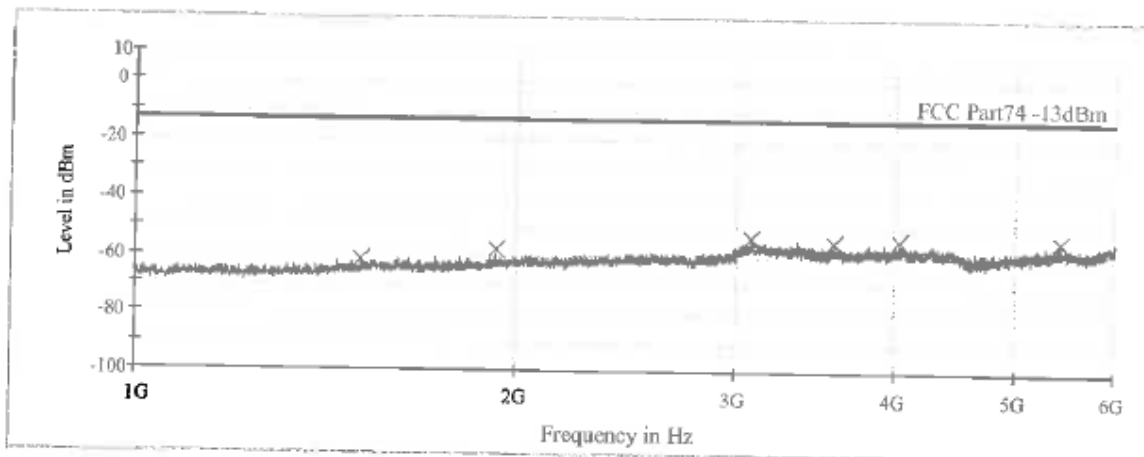
Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
58.000000	-76.7	1000.0	100.000	H	-79.3	63.7	-13.0
79.350000	-83.7	1000.0	100.000	H	-85.7	70.7	-13.0
152.950000	-80.4	1000.0	100.000	H	-82.4	67.4	-13.0
242.200000	-81.2	1000.0	100.000	H	-83.6	68.2	-13.0
397.650000	-77.8	1000.0	100.000	H	-79.8	64.8	-13.0
913.450000	-69.7	1000.0	100.000	H	-71.8	56.7	-13.0

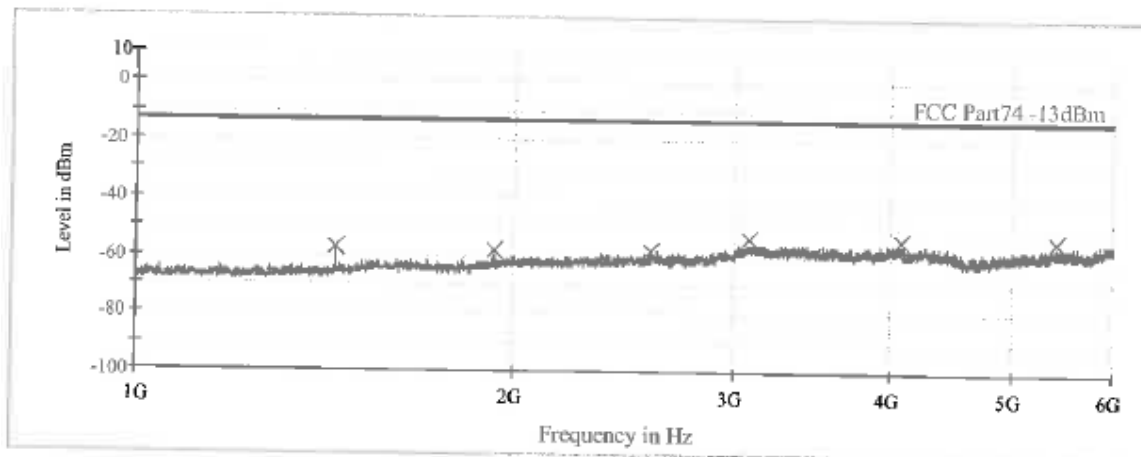
Figure 7: TX Spurious Radiation, 30 – 1000 MHz, Vertical (CH288, High CH)


Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
63.400000	-75.4	1000.0	100.000	V	-77.9	62.4	-13.0
79.300000	-77.0	1000.0	100.000	V	-78.8	64.0	-13.0
156.100000	-79.8	1000.0	100.000	V	-81.7	66.8	-13.0
243.700000	-80.9	1000.0	100.000	V	-83.2	67.9	-13.0
418.900000	-77.3	1000.0	100.000	V	-79.7	64.3	-13.0
917.800000	-69.2	1000.0	100.000	V	-71.9	56.2	-13.0

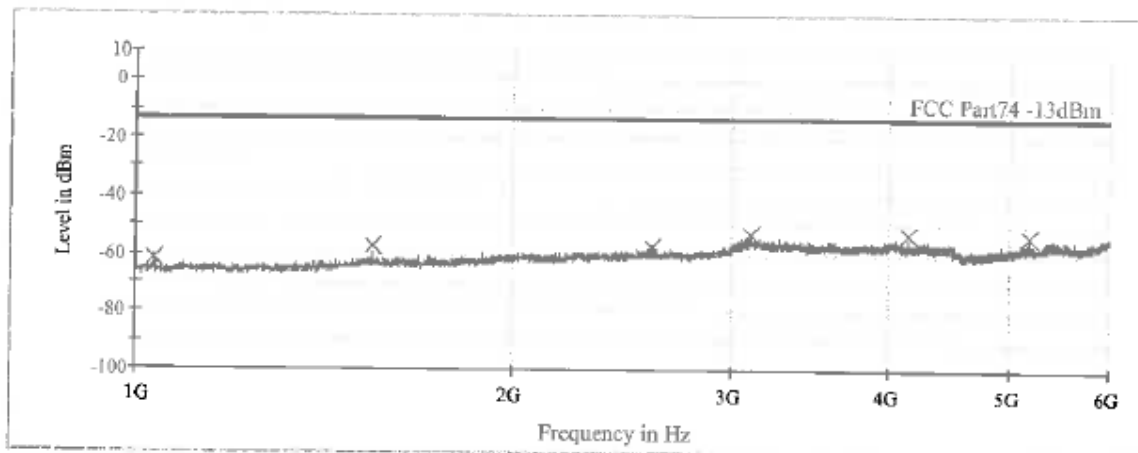
Figure 8: TX Spurious Radiation, Above 1GHz, Horizontal (CH288, Low CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1511.200000	-61.5	1000.0	1000.000	H	-109.6	48.5	-13.0
1927.600000	-57.8	1000.0	1000.000	H	-107.5	44.8	-13.0
3080.800000	-53.7	1000.0	1000.000	H	-101.5	40.7	-13.0
3580.000000	-55.3	1000.0	1000.000	H	-103.0	42.3	-13.0
4032.400000	-54.6	1000.0	1000.000	H	-102.6	41.6	-13.0
5426.800000	-54.1	1000.0	1000.000	H	-102.2	41.1	-13.0

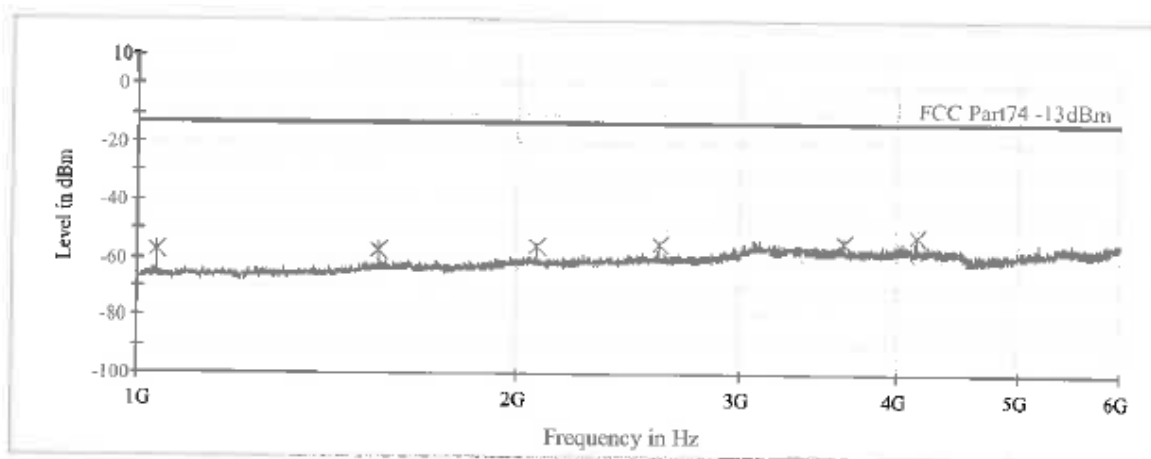
Figure 9: TX Spurious Radiation, Above 1GHz, Vertical (CH288, Low CH)


Limit and Margin PK

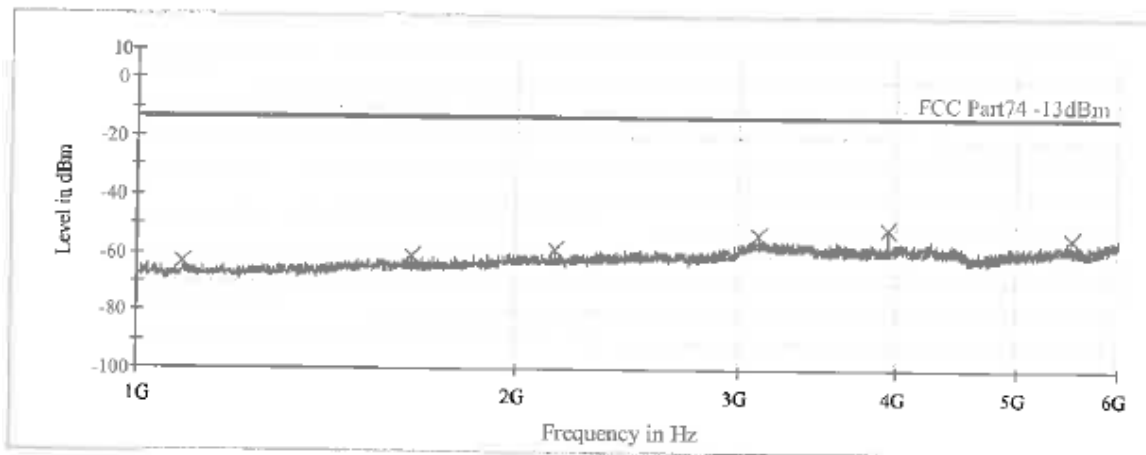
Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1445.600000	-57.2	1000.0	1000.000	V	-110.6	44.2	-13.0
1927.600000	-58.0	1000.0	1000.000	V	-107.5	45.0	-13.0
2570.000000	-57.8	1000.0	1000.000	V	-104.5	44.8	-13.0
3085.200000	-53.6	1000.0	1000.000	V	-101.5	40.6	-13.0
4078.000000	-54.5	1000.0	1000.000	V	-102.6	41.5	-13.0
5410.800000	-54.4	1000.0	1000.000	V	-102.2	41.4	-13.0

Figure 10: TX Spurious Radiation, Above 1GHz, Horizontal (CH288, Middle CH)

Limit and Margin PK

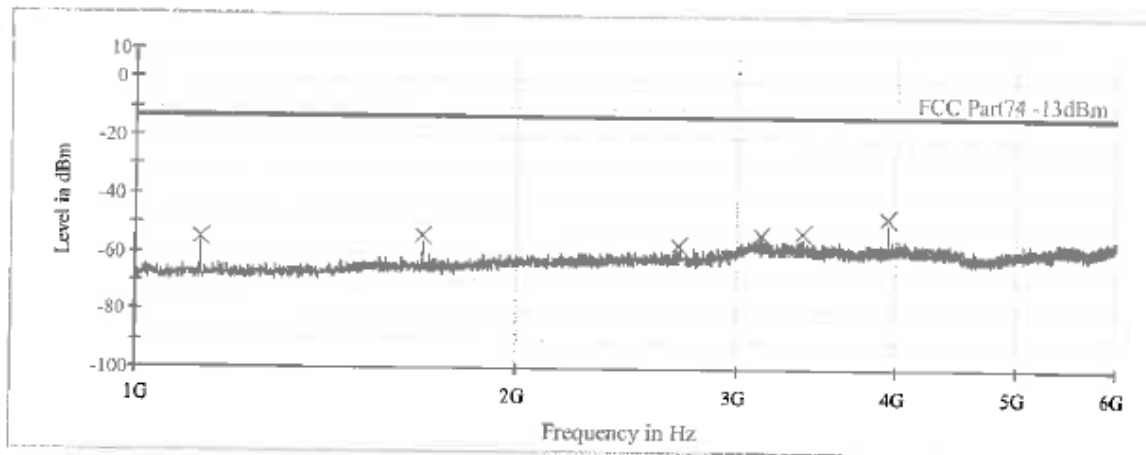
Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1036.400000	-62.1	1000.0	1000.000	H	-111.6	49.1	-13.0
1554.400000	-57.2	1000.0	1000.000	H	-109.1	44.2	-13.0
2590.800000	-57.4	1000.0	1000.000	H	-104.4	44.4	-13.0
3108.800000	-53.0	1000.0	1000.000	H	-101.5	40.0	-13.0
4145.600000	-52.5	1000.0	1000.000	H	-102.7	39.5	-13.0
5181.200000	-53.9	1000.0	1000.000	H	-103.2	40.9	-13.0

Figure 11: TX Spurious Radiation, Above 1GHz, Vertical (CH288, Middle CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1036.400000	-57.0	1000.0	1000.000	V	-111.6	44.0	-13.0
1553.600000	-57.0	1000.0	1000.000	V	-109.1	44.0	-13.0
2072.400000	-55.8	1000.0	1000.000	V	-106.8	42.8	-13.0
2590.800000	-55.1	1000.0	1000.000	V	-104.4	42.1	-13.0
3626.800000	-54.2	1000.0	1000.000	V	-102.9	41.2	-13.0
4145.200000	-51.9	1000.0	1000.000	V	-102.7	38.9	-13.0

Figure 12: TX Spurious Radiation, Above 1GHz, Horizontal (CH288, High CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1088.000000	-63.1	1000.0	1000.000	H	-111.6	50.1	-13.0
1654.400000	-61.1	1000.0	1000.000	H	-108.8	48.1	-13.0
2151.200000	-59.0	1000.0	1000.000	H	-107.1	46.0	-13.0
3105.600000	-53.8	1000.0	1000.000	H	-101.5	40.8	-13.0
3941.200000	-51.0	1000.0	1000.000	H	-103.0	38.0	-13.0
5528.000000	-54.6	1000.0	1000.000	H	-101.4	41.6	-13.0

Figure 13: TX Spurious Radiation, Above 1GHz, Vertical (CH288, High CH)

Limit and Margin PK

Frequency (MHz)	MaxPeak (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBm)
1125.600000	-55.1	1000.0	1000.000	V	-111.7	42.1	-13.0
1688.800000	-54.6	1000.0	1000.000	V	-109.0	41.6	-13.0
2699.200000	-57.6	1000.0	1000.000	V	-104.1	44.6	-13.0
3126.400000	-53.5	1000.0	1000.000	V	-101.7	40.5	-13.0
3378.000000	-52.7	1000.0	1000.000	V	-102.4	39.7	-13.0
3940.800000	-47.8	1000.0	1000.000	V	-103.0	34.8	-13.0

5.3. Modulation Characteristics measurement

RESULT:	PASS
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Date of testing : 06 Aug. 2014
 Test specification : FCC Part 2 Per Section 2.1047(a) and (b)
 Guide : ANSI/TIA-603-C-2004, clause 2.2.3
 Limits : FCC Part 2 Per Section 2.1047(a) and (b)
 Operation mode : Transmitting
 Temperature : 20°C
 Humidity : 51%

Figure 14: Modulation Characteristics measurement (CH288)

Frequency (Hz)	Deviation (kHz)	Frequency (Hz)	Deviation (kHz)
100	7.7	4000	10.9
200	8.2	5000	12.9
300	8.5	6000	13.7
400	8.6	7000	14.6
500	8.5	8000	15.3
600	8.6	9000	16.1
700	8.6	10000	16.5
800	8.7	12000	16.9
900	8.8	13000	16.4
1000	9.2	14000	15.1
1500	9.4	15000	13.1
2000	9.9	16000	10.9
3000	10.9	17000	8.8

Modulation (dB)		-20	-10	0	5	15	20
400Hz	kHz	8.1	14.1	24.7	32.3	47.7	53.2
800Hz	kHz	8.2	14.4	25.3	32.1	46.5	52.1
2kHz	kHz	9.4	16.5	28.9	36.8	46.7	49.3
5kHz	kHz	12.2	21.5	36.2	43.8	56.5	59.3
9kHz	kHz	15.2	26.8	43.4	49.8	57.9	58.3
12kHz	kHz	16.1	28.1	43.5	49.8	55.5	55.7
14kHz	kHz	14.3	25.1	38.5	42.5	46.5	46.7

5.4. Occupied Bandwidth

RESULT:	PASS
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Date of testing	:	25 Sep. 2014
Test specification	:	FCC Part 2 Per Section 2.1049(c)1
Guide	:	ANSI/TIA-603-C-2004, clause 2.2.11
Limits	:	FCC Part 74 Per Section 74.861(e)(3), 74.861(e)(5) and 74.861(e)(6)
Operation mode	:	Transmitting (modulated)
Temperature	:	20°C
Humidity	:	51%

Figure 15: Occupied Bandwidth (CH288)

Equipment under test: CH288
Ambient temperature: 20°C
Relative humidity: 51% RH
Result: Pass
Remark: RBW=300Hz VBW=1kHz

Channel	Frequency (GHz)	Test Result (kHz)
H	0.565976	95.24
M	0.518125	94.25
L	2.470 0.470125	94.34

5.5. Frequency tolerance

RESULT:
PASS

Date of testing : 25 Sep. 2014
 Test specification : FCC Part 2 Per Section 2.1055
 Guide : ANSI/TIA-603-C-2004, clause 2.2.2
 Limits : FCC Part 74 Per Section 74.861(e)(4)
 Operation mode : Transmitting (unmodulated)
 Temperature : -30°C to 50°C
 Humidity : 51%

Figure 16: Frequency tolerance (CH288)
Table 1: The measurement of Frequency Tolerance (supply voltage)

Temperature (°C)	Power supply	Low Frequency (MHz) (470.125)	Middle Frequency (MHz) (518.125)	High Frequency (MHz) (565.975)
20	DC3.3	470.13825	518.12584	565.97533
20	DC3.0	470.12536	518.12576	565.97528
20	DC2.7	470.12605	518.12585	565.97544
Frequency Error:		0.01325	0.00085	0.00044
Frequency tolerance:		0.0028%	0.0002%	0.0001%
Frequency Tolerance Limit:		0.005%		

Test condition	Power supply	Low Frequency (MHz) (470.125)	Middle Frequency (MHz) (518.125)	High Frequency (MHz) (565.975)
-30°C	DC3.0V	470 470.12498	518.12084	565.97130
-20°C	DC3.0V	470.12332	518.12195	565.97548
-10°C	DC3.0V	470.12398	518.12439	565.97518
0°C	DC3.0V	470.12477	518.12554	565.97633
10°C	DC3.0V	470.12612	518.12611	565.97575
20°C	DC3.0V	470.12582	518.12638	565.97554
30°C	DC3.0V	470.12603	518.12549	565.97613
40°C	DC3.0V	470.12582	518.12354	565.97504
50°C	DC3.0V	470.12554	518.12337	565.96933
Frequency Error:		-0.01780	-0.00416	0.00133
Frequency tolerance:		-0.0038%	-0.0008%	0.0002%
Frequency Tolerance Limit:		0.005%		

5.6. Emission Mask

RESULT:
PASS

Date of testing	:	17 Sep 2014 / 25 Sep. 2014
Test specification	:	FCC Part 2 Per Section 2.1053(a) and 2.1057
Guide	:	ANSI/TIA-603-C-2004, clause 2.2.12
Limits	:	FCC Part 74 Per Section 74.861(e)(6)
Operation mode	:	Transmitting (modulated)
Temperature	:	20°C
Humidity	:	51%

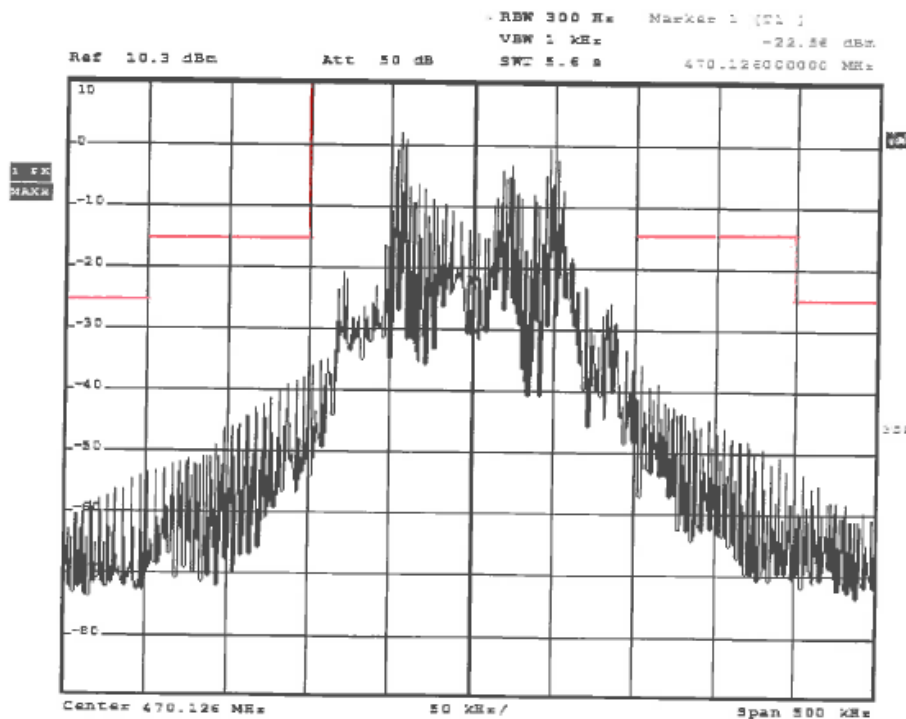
Figure 17: Emission Mask (CH288, Low CH)


Figure 18: Emission Mask (CH288, Middle CH)

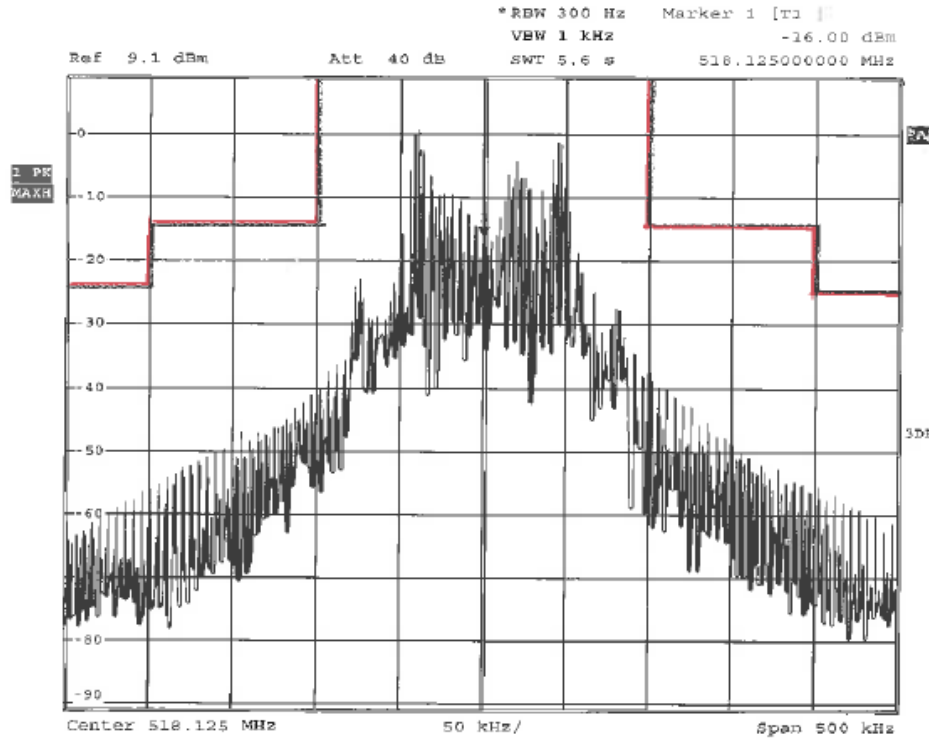
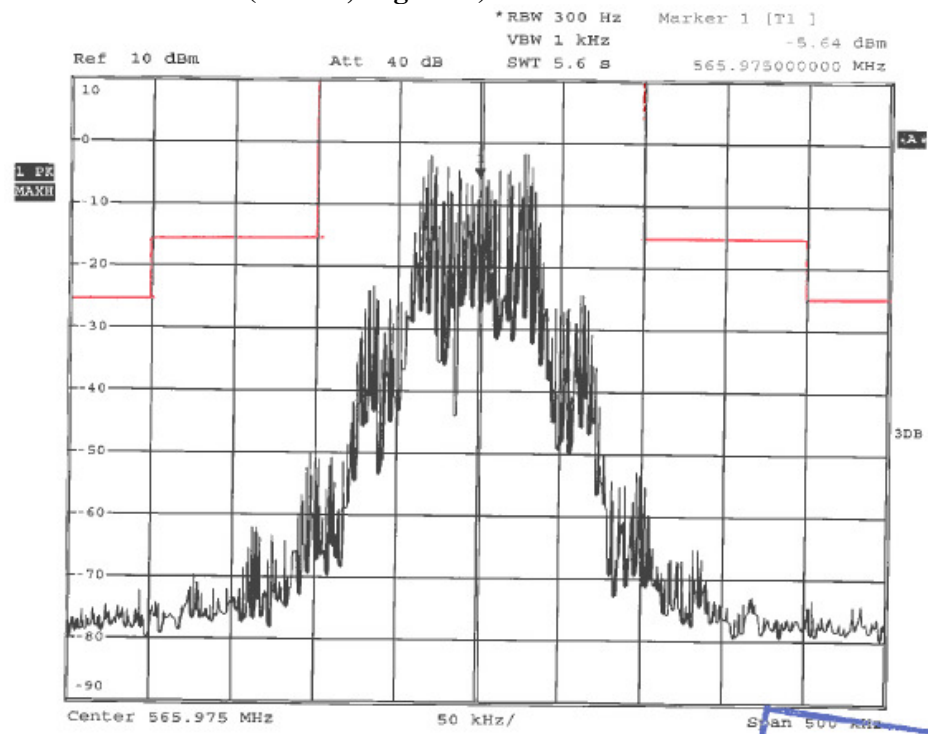


Figure 19: Emission Mask (CH288, High CH)



5.7. Electromagnetic Fields

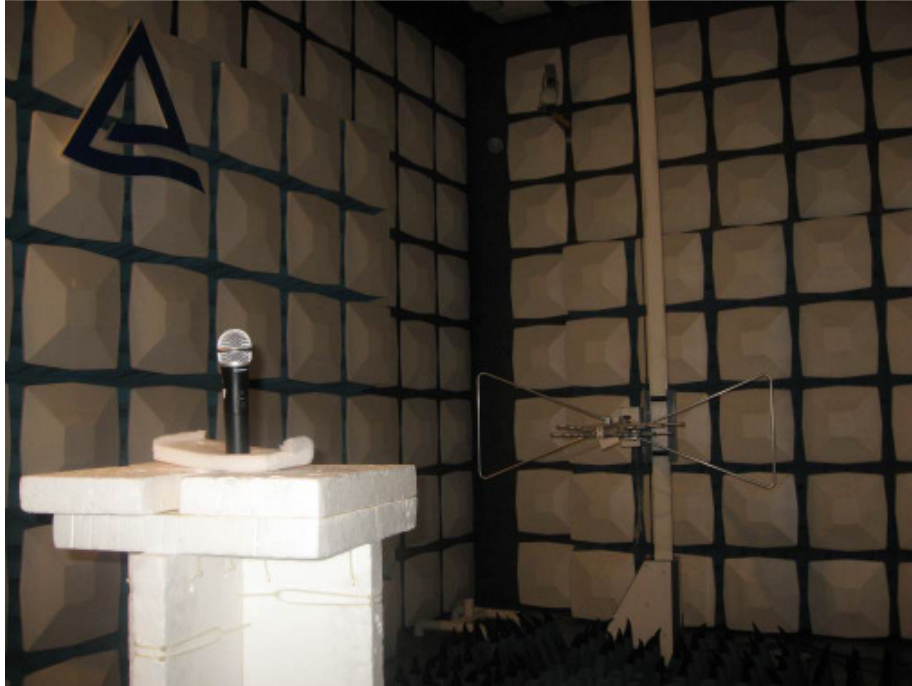
RESULT:**PASS**

Date of testing : 17 Sep 2014
Guide : FCC KDB Publication 447498

The minimum distance for the EUT is <5mm, since maximum peak output power of the transmitter is 18.239mW (12.61dBm) < 22mW, hence the EUTs are excluded from SAR evaluation according to FCC KDB publication 447498 D01: Mobile and Portable RF Exposure. Guidance v05.

6. Photographs of Test Setup

Picture 1: Spurious Radiation Measurement, 30MHz-1GHz (CH288)



Picture 2: Spurious Radiation Measurement, Above 1GHz (CH288)



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